

Date: Monday, 11/05/2009 1:22:41 PM  
 User: Julie Dawson

## Process Sheet

<b>Customer</b> : CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> : ARM
<b>Job Number</b> : 47866	
<b>Estimate Number</b> : 12884	
<b>P.O. Number</b> :	<b>Part Number</b> : D3560044
<b>This Issue</b> : 11/05/2009 <b>S.O. No.</b> :	<b>Drawing Number</b> : D3560 REV D
<b>Prsht Rev.</b> : NC	<b>Project Number</b> : N/A
<b>First Issue</b> : // <b>Type</b> : MACHINED PARTS	<b>Drawing Revision</b> : D
<b>Previous Run</b> : 46620	<b>Material</b> :
<b>Written By</b> :	<b>Due Date</b> : 28/05/2009 <b>Qty:</b> 4 <b>Um:</b> Each
<b>Checked &amp; Approved By</b> : <u>MO 09.05.11</u>	
<b>Comment</b> :	
Est Rev:A New Issue 07.05.24 EC	
Est Rev B ECN 987 07.10.09 EC verified by DD	
Est Rev:C ECN1048 07-12-18 DD verified by: EC	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M6061T6B0500X05000	6061-T6 Bar .500 x 5.00
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**Comment:** Qty.: 1.3598 f(s)/Unit Total: 5.4390 f(s)  
 6061-T6 Bar 0.50" x 5.00"  
 Batch: M111408

mk 09/05/20

4

2.0	BAND SAW	BAND SAW
-----	----------	----------



**Comment:** BAND SAW  
 Cut blanks 15.500" long

mk 09/05/20

4

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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**Comment:** HAAS CNC VERTICAL MACHINING #1

1- Mill as per Folio FA696 Rev: B & Dwg D3560 Rev: D

2-C'sink 0.196" hole on manual mill as per dwg D3560

3-Deburr per dwg D3560

H.A 09/05/23

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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**Comment:** INSPECT PARTS AS THEY COME OFF MACHINE

H.A 09/05/23

(4)

(4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 11/05/2009 1:22:41 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ARM

Job Number: 47866

Part Number: D3560044

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

*mk 09/05/28*

(4)

6.0

D35921

Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

PLATE

*346891*

*09.06.09 4*

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld assembly as per dwg D3560

STEP:

- 1- clean material (buff bracket and bottom of arm with blue pad ) *h*
- 2- set up bracket and arm on jig *h*
- 3- preheat bracket and arm with torch *h*
- 4- clean before welding with brush *h*
- 5- set up machine to 135 amps *h*
- 6- weld across bottom and top ends *h*
- 7- reheat with torch ( 65 deg C ) *h*
- 8- on one side weld from bottom to top half way *h*
- 9- same for other side (half way) *h*
- 10- from half way point weld the rest of the first side (ease off pedal near end) *h*
- 11- same for remaining side (ease off pedal near end) *h*

*09.06.09 4*

8.0

QC5

INSPECT WORK TO CURRENT STEP



(548)

Comment: INSPECT WORK TO CURRENT STEP

*09/06/09*

(XY)

9.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

*PD 09.06.09 (5)*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 11/05/2009 1:22:42 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: ARM

Job Number: 47866

Part Number: D3560044

Job Number:



Seq. #:

Machine Or Operation:

Description :

10.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

BR 09-06-10 (K)

11.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

S 09/06/10 (K)

12.0

D2808

Bushing



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Spacer

batch:

B42/81

ES 09/06/11

13.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Press bushing in D3560 arm per dwg D3562

ES 09/06/11 (4)

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

S 09/06/11 (4)

15.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: WA

K 09-06-11 4

16.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/06/11 (4)

Job Completion



MF 09-06-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> <u>L7860</u>
<b>Description:</b> Arm		<b>Part Number:</b> D3560-4
<b>Inspection Dwg:</b> D3560	<b>Rev:</b> B	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

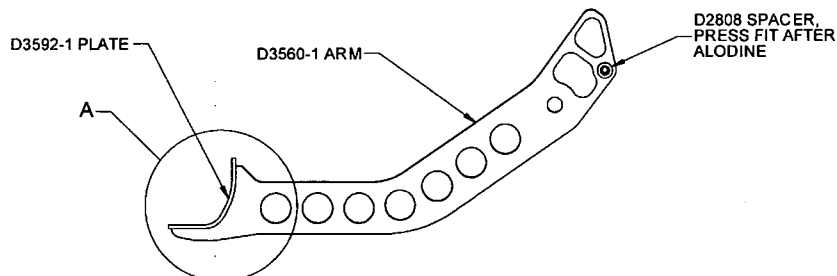
☒ First Article
 ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.507	+0.000/-0.001	Ø0.507	✓			
Ø0.196	+0.005/-0.001	Ø0.198	✓			
Ø1.000	+0.010/-0.001	Ø1.005	✓			
Ø0.900	+0.010/-0.001	Ø0.903	✓			
0.500	+/-0.010	0.495	✓			
0.250	+/-0.010	0.251	✓			
0.275	+/-0.010	0.274	✓			
0.188	+/-0.010	0.191	✓			
<del>2.000</del>	<del>+/-0.010</del>					
1.750	+/-0.010	1.750	✓			
1.702	+/-0.010	1.702	✓			
Ø0.385 x 100°	+/-0.010 x 0.5°	Ø0.385 x 100°	✓			
0.250 Deep	+/-0.010	0.252	✓			

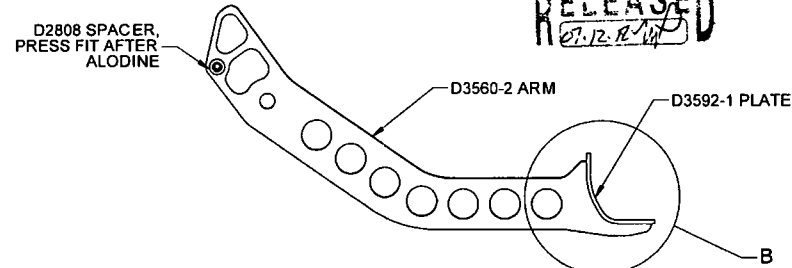
<b>Measured by:</b> <u>L.A.</u>	<b>Audited by:</b> <u>amb</u>	<b>Prototype Approval:</b>	N/A
<b>Date:</b> <u>09/05/23</u>	<b>Date:</b> <u>09/05/28</u>	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	07.01.17	New Issue	KJ/JLM	
B	07.06.13	Dimensions updated per Dwg Rev B	KJ/JLM <u>JA</u>	<u>BE</u>

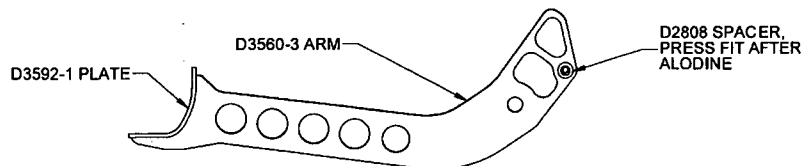
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01.12.2014



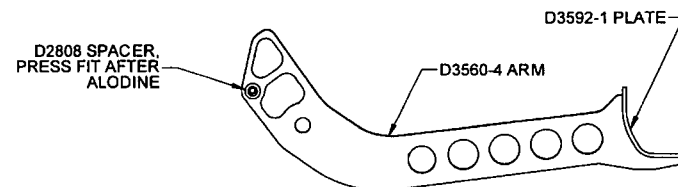
**D3560-041 ARM WELDMENT**



**D3560-042 ARM WELDMENT**



**D3560-043 ARM WELDMENT**



**D3560-044 ARM WELDMENT**

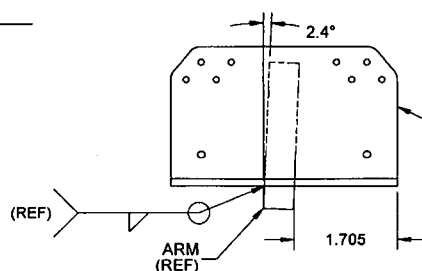
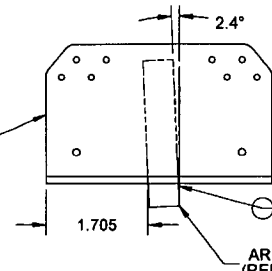


PLATE  
(REF)



ARM  
(REF)

DETAIL B  
SCALE 1 : 2

**PARTS LIST**

QTY -041	QTY -042	QTY -043	QTY -044	P/N	DESCRIPTION
X				D3560-041	ARM WELDMENT
	X			D3560-042	ARM WELDMENT
		X		D3560-043	ARM WELDMENT
			X	D3560-044	ARM WELDMENT
1	1	1	1	D2808	SPACER
1				D3560-1	ARM
	1			D3560-2	ARM
		1		D3560-3	ARM
			1	D3560-4	ARM
1	1	1	1	D3592-1	PLATE

DESIGN	ADD D2808 PRESS FIT NOTE; REDRAWN IN SOLIDWORKS	DC	07.11.16
DRAWN	REMOVE POWDER COAT	CP	07.06.19
CHECKED	REDESIGN AS WELDMENT, ADD POCKETS	CP	07.01.15
MFG. APPR.	NEW ISSUE	CP	06.09.25
APPROVED		BY	DATE
DE APPR.			
DATE	07.11.16		

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

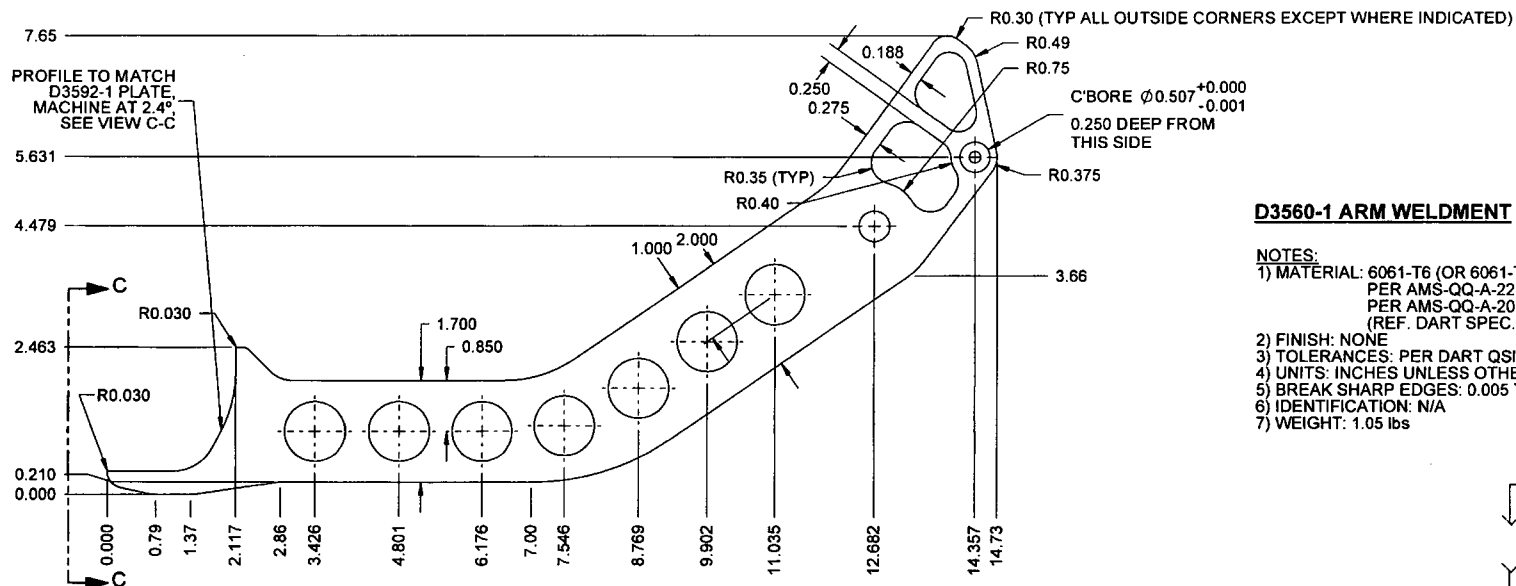
DRAWING NO. **D3560** REV. D  
SHEET 1 OF 5  
TITLE **ARM WELDMENT** SCALE 1:4

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COPY  
DETAIL A  
SCALE 1 : 2  
DETAIL B  
SCALE 1 : 2

- NOTES:**
- 1) MATERIAL: N/A
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 1.23 lbs (TYP)
  - 8) WELDING: PER DART QSI 004

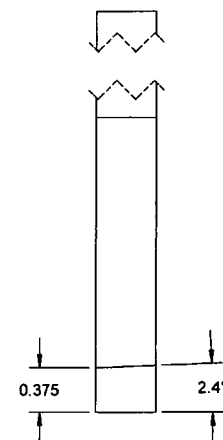
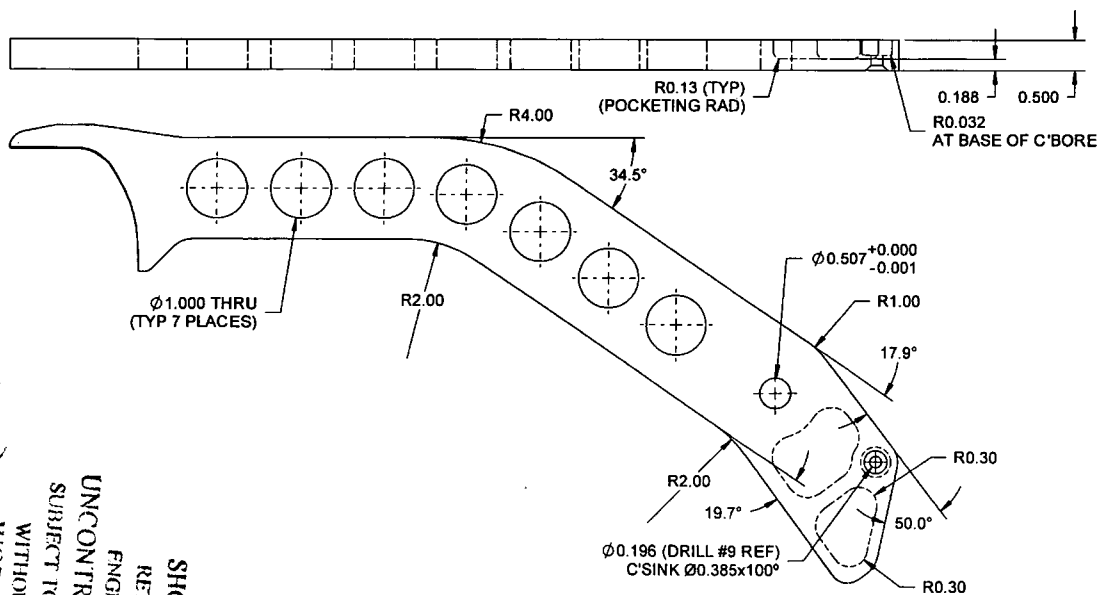




### D3560-1 ARM WELDMENT







#### NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.05 lbs

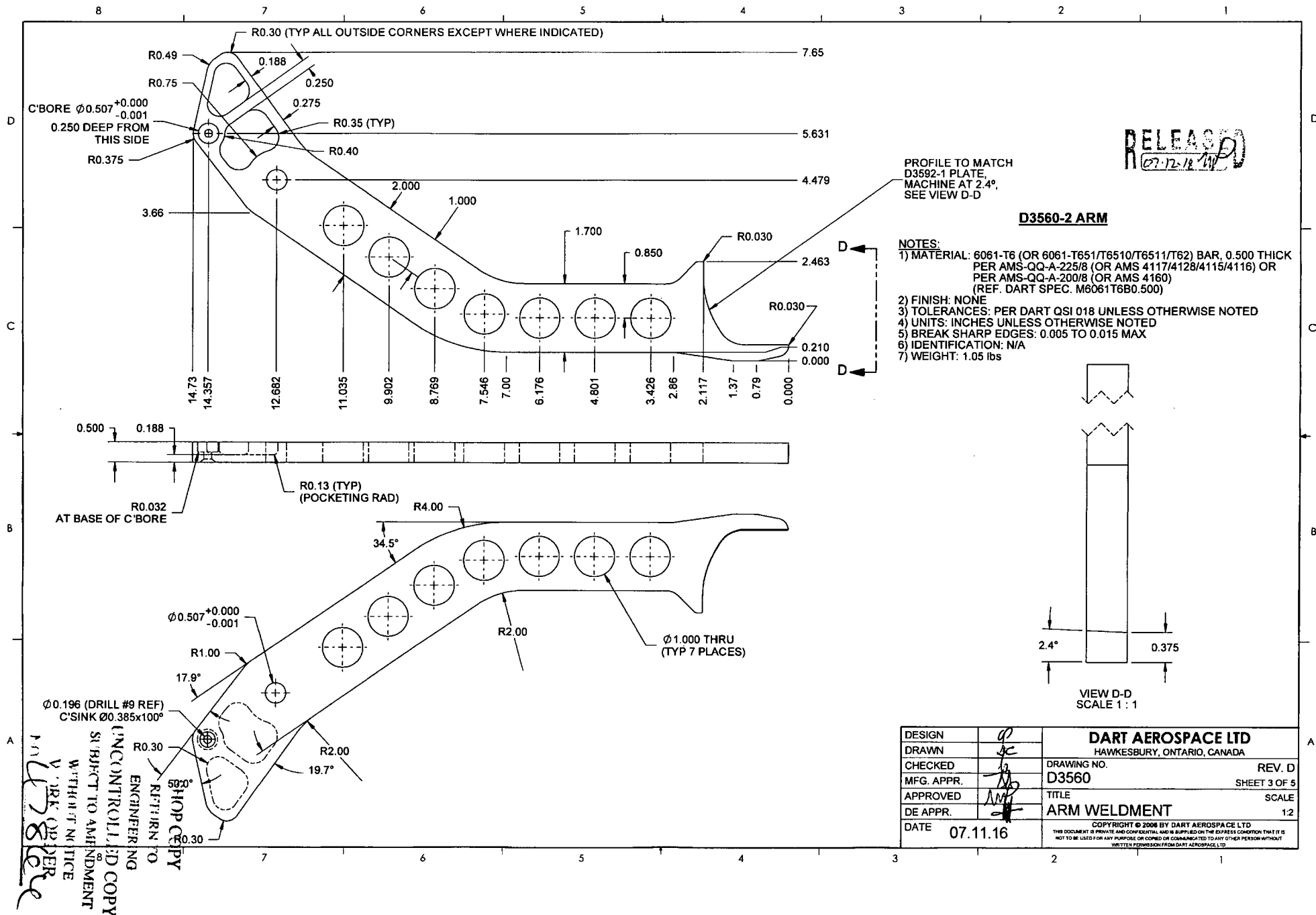


VIEW C-C  
SCALE 1:1

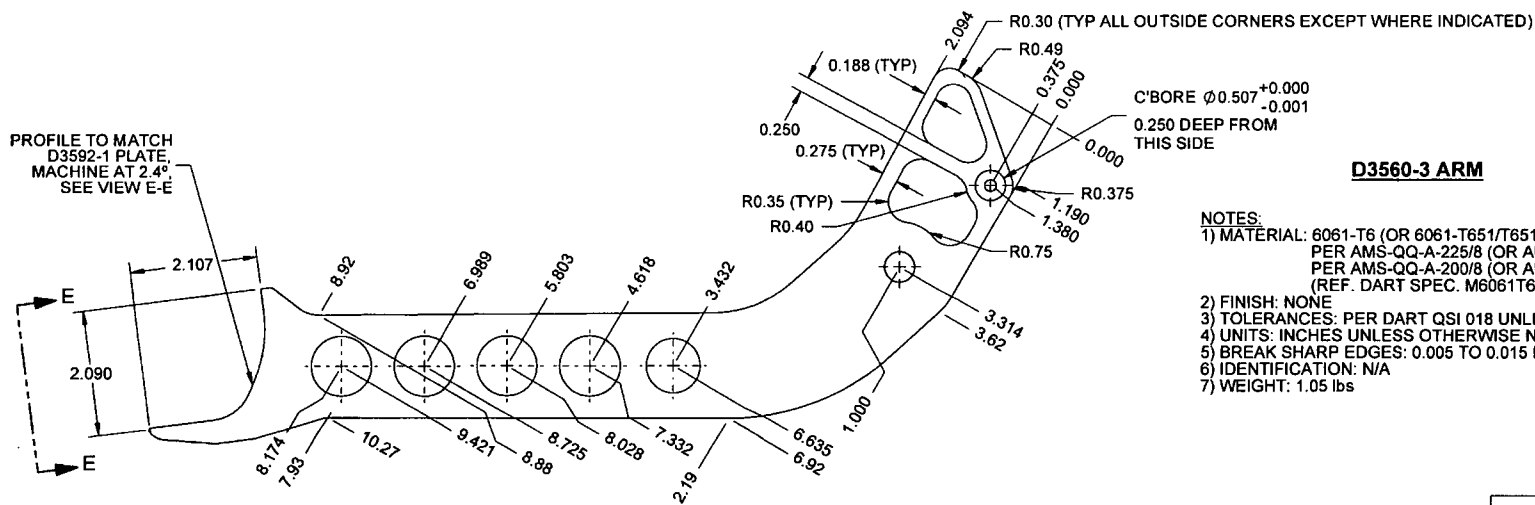
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07.12.16

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DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. I
MFG. APPR.		D3560	SHEET 2 OF 5
APPROVED		TITLE	SCALE
DE APPR.		ARM WELDMENT	1:1
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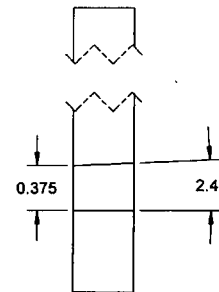
PROFILE TO MATCH  
D3592-1 PLATE  
MACHINE AT 2.4°  
SEE VIEW E-E



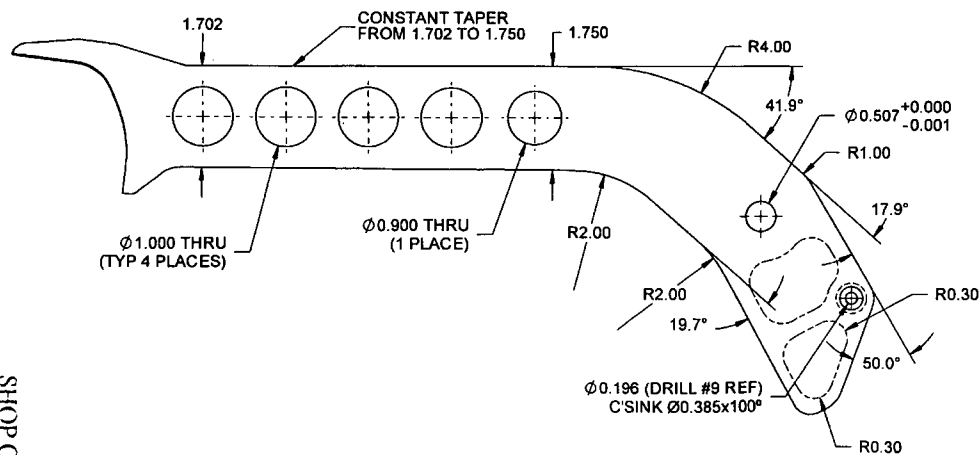
### D3560-3 ARM

#### NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.05 lbs

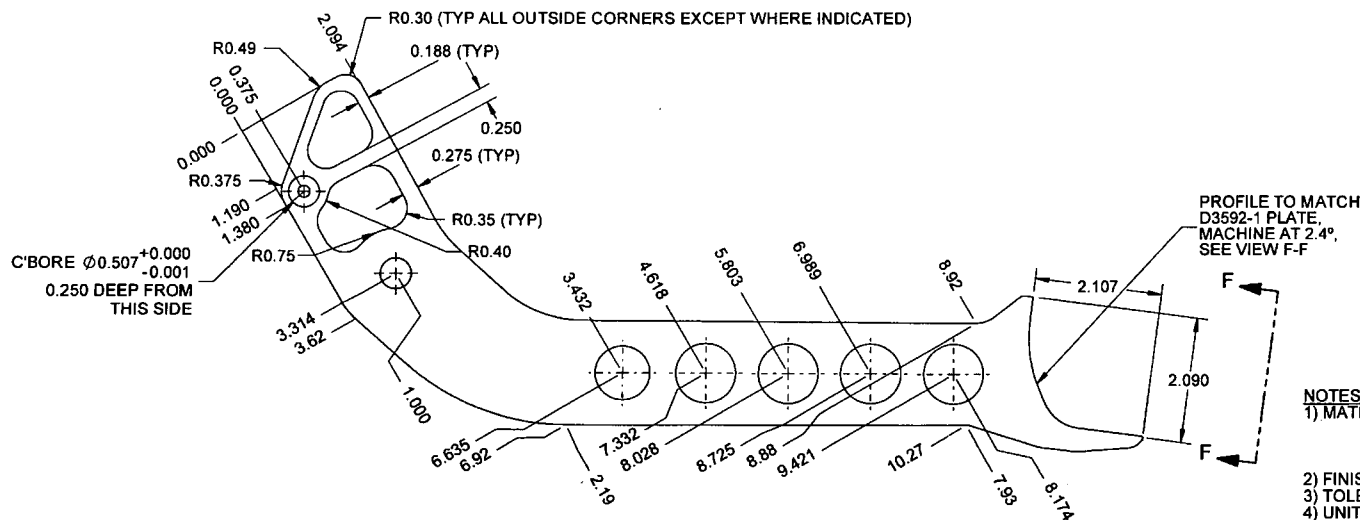


VIEW E-E  
SCALE 1:1



DESIGN	AP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AC		
CHECKED	AS	DRAWING NO. <b>D3560</b>	REV. D
MFG. APPR.	MP	TITLE <b>ARM WELDMENT</b>	SHEET 4 OF 5
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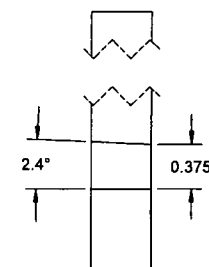
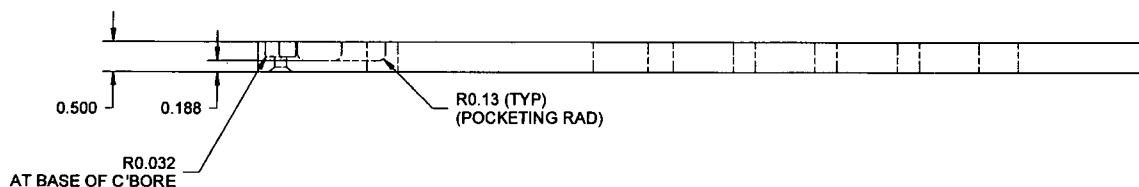
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PROFILE TO MATCH  
D3592-1 PLATE.  
MACHINE AT 2.4°.  
SEE VIEW F-F

### D3560-4 ARM

- NOTES:
- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR, 0.500 THICK  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116) OR  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
(REF. DART SPEC. M6061T6B0.500)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 1.05 lbs



VIEW F-F  
SCALE 1:1

RELEASE  
07-12-84

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN	BC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D3560	SHEET 5 OF 5
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DE APPR.		ARM WELDMENT	1:2
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